

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	12	US-5536699-\$.DID. OR US-5470542-\$.DID. OR US-5417939-\$.DID. OR US-5770770-\$.DID. OR US-5113015-\$.DID. OR US-4352940-\$.DID.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 08:11
L2	31	"0127062"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 08:45
L3	1247	reactive adj distillation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 08:46
L4	204	prereactor	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 08:47
L5	9	I3 same I4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 09:47
L7	681	562/606.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 09:47
L8	4	I3 and I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/18 09:47

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS	4	AUG 28	ADISCTI Reloaded and Enhanced
NEWS	5	AUG 30	CA(SM)/CAPLUS(SM) Austrian patent law changes
NEWS	6	SEP 11	CA/CAPLUS enhanced with more pre-1907 records
NEWS	7	SEP 21	CA/CAPLUS fields enhanced with simultaneous left and right truncation
NEWS	8	SEP 25	CA(SM)/CAPLUS(SM) display of CA Lexicon enhanced
NEWS	9	SEP 25	CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS	10	SEP 25	CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS	11	SEP 28	CEABA-VTB classification code fields reloaded with new classification scheme
NEWS	12	OCT 19	LOGOFF HOLD duration extended to 120 minutes
NEWS	13	OCT 19	E-mail format enhanced
NEWS	14	OCT 23	Option to turn off MARPAT highlighting enhancements available
NEWS	15	OCT 23	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS	16	OCT 23	The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS	17	OCT 30	CHEMLIST enhanced with new search and display field
NEWS	18	NOV 03	JAPIO enhanced with IPC 8 features and functionality
NEWS	19	NOV 10	CA/CAPLUS F-Term thesaurus enhanced
NEWS	20	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS	21	NOV 13	CA/CAPLUS pre-1967 chemical substance index entries enhanced with preparation role
NEWS	22	NOV 20	CAS Registry Number crossover limit increased to 300,000 in additional databases
NEWS	23	NOV 20	CA/CAPLUS to MARPAT accession number crossover limit increased to 50,000
NEWS	24	DEC 01	CAS REGISTRY updated with new ambiguity codes
NEWS	25	DEC 11	CAS REGISTRY chemical nomenclature enhanced
NEWS	26	DEC 14	WPIDS/WPINDEX/WPIX manual codes updated
NEWS	27	DEC 14	GBFULL and FRFULL enhanced with IPC 8 features and functionality

NEWS EXPRESS    NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

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=> file caplus

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 09:15:47 ON 18 DEC 2006

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FILE LAST UPDATED: 17 Dec 2006 (20061217/ED)

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=> reactive Distill?

300835 REACTIVE

151 REACTIVES

300940 REACTIVE

(REACTIVE OR REACTIVES)

119520 DISTILL?

164541 DISTD

1 DISTDS

164541 DISTD

(DISTD OR DISTDS)

25950 DISTG

176262 DISTN

1781 DISTNS

177001 DISTN

(DISTN OR DISTNS)

376913 DISTILL?

(DISTILL? OR DISTD OR DISTG OR DISTN)

L1 1117 REACTIVE DISTILL?

(REACTIVE(W)DISTILL?)

=> prereact?

L2 1428 PREREACTION?

=> l1(l)l2

L3 4 L1(L)L2

=> d l3 1-4 ti

L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Method for producing dimethyl carbonate and ethylene glycol from ethylene carbonate and methanol continuously using pre-reactor

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Esterification of a Fatty Acid by Reactive Distillation

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Conceptual design aspects of reactive distillation processes for ideal binary mixtures

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Application of a fluidized reaction-distillation column for hydrolysis of methyl acetate

=> d l3 2-4 ti fbib abs

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Esterification of a Fatty Acid by Reactive Distillation  
AN 2003:469513 CAPLUS  
DN 139:181931  
TI Esterification of a Fatty Acid by Reactive Distillation  
AU Steinigeweg, Sven; Gmehling, Juergen  
CS Carl von Ossietzky University of Oldenburg, Industrial Chemistry, Oldenburg, D-26111, Germany  
SO Industrial & Engineering Chemistry Research (2003), 42(15), 3612-3619  
CODEN: IECRED; ISSN: 0888-5885.  
PB American Chemical Society  
DT Journal  
LA English  
OS CASREACT 139:181931  
AB A reactive distillation process for the production of decanoic acid Me esters by esterification of the fatty acid decanoic acid with methanol is presented. The reaction was catalyzed heterogeneously by a strong acidic ion-exchange resin (Amberlyst 15). A pragmatic kinetic model based on a Langmuir-Hinshelwood-Hougen-Watson approach was derived and the kinetic consts. of this and a pseudohomogeneous model were fitted. Two different catalytic packings, Katapak-S and Katapak-SP, were used for reactive distillation expts. The separation efficiency of Katapak-SP was determined exptl. and reactive distillation expts. in pilot-plant columns were performed. Operation conditions were varied (reflux ratio and reactant ratio) exptl. An equilibrium stage model is capable of describing the expts. quant. when the adsorption based a kinetic model is applied. Simulation was used subsequently to determine the influence of important operating and design factors (reactant ratio, reflux ratio, pressure, distillate-to-feed ratio, size of the reactive section, and role of a prereactor) and to compare the packings systematically. Finally, a process is proposed that is promising for scale-up and optimization with regard to economic issues.

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Conceptual design aspects of reactive distillation processes for ideal binary mixtures  
AN 2002:874569 CAPLUS  
DN 138:58144  
TI Conceptual design aspects of reactive distillation processes for ideal binary mixtures  
AU Sundmacher, Kai; Qi, Zhiwen  
CS Max-Planck-Institut fuer Dynamik komplexer technischer Systeme, Magdeburg, D-39106, Germany

SO Chemical Engineering and Processing (2003), 42(3), 191-200  
 CODEN: CENPEU; ISSN: 0255-2701  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB A comparative study on the conceptual design of reactive distillation process configurations is presented, considering the reversible reaction  $A1 \leftrightarrow A2$  in an ideal binary mixture as simple model system. The analyzed flow schemes are a reactor-distillation column sequence with an external recycle loop, the same recycle system with a prereactor, a nonreactive distillation column on top of a reactive reboiler, a fully reactive distillation column, and a hybrid distillation column combining a reactive and a nonreactive section. For these configurations, the design aspects are discussed in terms of the most important operating parameters, kinetic parameters and design parameters.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN  
 TI Application of a fluidized reaction-distillation column for hydrolysis of methyl acetate  
 AN 1997:373867 CAPLUS  
 DN 127:83057  
 TI Application of a fluidized reaction-distillation column for hydrolysis of methyl acetate  
 AU Han, S. J.; Jin, Y.; Yu, Z. Q.  
 CS Department of Chemical Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China  
 SO Chemical Engineering Journal (Lausanne) (1997), 66(3), 227-230  
 CODEN: CMEJAJ; ISSN: 1385-8947  
 PB Elsevier  
 DT Journal  
 LA English  
 AB A method for hydrolysis of MeOAc, a byproduct of poly(vinyl alc.) production, consists of a prereactor and a reactive distn . column. The operating variables, including the feed rate, feed ratio of water to MeOAc and reflux ratio, were investigated. The conversion of MeOAc increases with increasing reflux ratio, but decreases with increasing feed rate. The feed ratio of water to MeOAc has a considerable effect on the conversion of MeOAc, and an optimum feed ratio was determined

=> logoff hold  
 COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
18.61	18.82

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-2.25	-2.25

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